

Claims

[c1] What is claimed is:

1. A method for detecting a lost status report by a receiver in a communications system, the communications system including a receiver and a sender wherein data is communicated by acknowledged mode data (AMD) protocol data units (PDUs), the method comprising:
sending a first status report to the sender in response to a first trigger;
initiating a roundtrip timer;
after expiry of the roundtrip timer, receiving a predetermined AMD PDU before all negatively acknowledged AMD PDUs identified in the first status report are received at the receiver; and
determining that a second status report is required.

[c2] 2. The method of claim 1, wherein the step of determining that a second status report is required further comprises sending the second status report to the sender.

[c3] 3. The method of claim 1, wherein determining that a second status report is required further comprises:
determining that a status report is not prohibited; and
sending the second status report to the sender.

- [c4] 4. The method of claim 3, wherein determining that a status report is not prohibited is performed by checking a status report prohibit timer.
- [c5] 5. The method of claim 1, wherein duration of the roundtrip timer is set at least to a sum of a propagation delay and at least a processing time of the sender or the receiver.
- [c6] 6. The method of claim 1, wherein duration of the roundtrip timer is set to at least a sum of the roundtrip propagation delay, the processing time of the sender, and the processing time of the receiver.
- [c7] 7. The method of claim 1, wherein the predetermined AMD PDU is an AMD PDU not negatively acknowledged in the first status report.
- [c8] 8. The method of claim 1, wherein the predetermined AMD PDU is an AMD PDU with a polling bit set.
- [c9] 9. The method of claim 1, wherein the predetermined AMD PDU is the last negatively acknowledged AMD PDU in the first status report.
- [c10] 10. The method of claim 1, wherein the first trigger is detecting an expiration of a periodic timer.

- [c11] 11. The method of claim 1, wherein the first trigger is receiving an AMD PDU with a polling bit set.
- [c12] 12. The method of claim 1, wherein the first trigger is detecting at least a missing AMD PDU.
- [c13] 13. The method of claim 1, wherein the first status report is current and the second status report is subsequent, the method further comprising iteratively repeating all steps taking the subsequent status report as the first status report.
- [c14] 14. The method of claim 1, wherein the second status report contains an updated receiving status of the receiver.
- [c15] 15. The method of claim 1, wherein sending a first status report to the sender in response to a first trigger further comprises:
delaying sending a third status report to the sender in response to a second trigger.
- [c16] 16. The method of claim 15, wherein the second trigger is an expiration of a periodic timer.
- [c17] 17. The method of claim 15, wherein after determining that a second status report is required:
receiving all negatively acknowledged AMD PDUs identi-

fied in the first status report;
determining that the first status report is received by the sender; and
sending the third status report in response to the delayed second trigger.